

IN THE CLAIMS

1. (currently amended) A transmitting diversity system with a base station transmitting signals from a plurality of antennas and performing diversity transmission according to feedback data transmitted from a mobile node receiving the signals, comprising:

a signal condition detection unit detecting the a condition of a signal transmitted from each of the plurality of antennas, wherein said feedback data including weighting information for only a part from among the plurality of antennas to be controlled excepting a reference antenna is received from the mobile node;

an antenna selection unit selecting an antenna, for which a control weight is calculated, from the part of the plurality of antennas based on said feedback data; and

a control weight unit calculating only the control weight applied to the selected antenna and applying the control weight to signals transmitted from the selected antenna, wherein

said control weight unit fixes the control weight of an unselected antenna from the part of the plurality of antennas to a current value.

2. – 3. (canceled)

4. (previously presented) The transmitting diversity system according to claim 1, wherein said signal condition detection unit measures propagation loss, fading frequency or correlation coefficient between antennas of the signal.

5. (original) The transmitting diversity system according to claim 1, wherein said signal condition detection unit is provided for the mobile node.

6. (original) The transmitting diversity system according to claim 1, wherein said signal condition detection unit is provided for the base station.

7. (previously presented) The transmitting diversity system according to claim 1, wherein

the plurality of antennas are provided for a plurality of base stations, and said antenna selection unit also selects the base station to communicate with by selecting an antenna with the controlled weight from the plurality of antennas and making possible a handover process accompanying the travel of each mobile node.

8. (currently amended) A transmitting diversity method with a base station transmitting signals from a plurality of antennas and performing diversity transmission according to feedback data transmitted from a mobile node receiving the signals, comprising the steps of:

detecting ~~the~~ a condition of a signal transmitted from each of the plurality of antennas, wherein said feedback data including weighting information for only a part from among the plurality of antennas to be controlled excepting a reference antenna is received from the mobile node;

selecting an antenna, for which a control weight is calculated, from the part of the plurality of antennas based on said feedback data; and

calculating only the control weight applied to the selected antenna and applying the control weight to signals transmitted from the selected antenna, wherein

in the step of calculating and applying the control weight, the control weight of an unselected antenna from the part of the plurality of antennas is fixed to a current value.

9. – 10. (canceled)

11. (previously presented) The transmitting diversity method according to claim 8, wherein in the detecting step, propagation loss, fading frequency or correlation coefficient between antennas of the signal is measured.

12. (previously presented) The transmitting diversity method according to claim 8, wherein the detecting step is performed in the mobile node.

13. (previously presented) The transmitting diversity method according to claim 8, wherein the detecting step is performed in the base station.

14. (previously presented) The transmitting diversity method according to claim 8, wherein

the plurality of antennas are provided for a plurality of base stations, and

in the selecting step, the base station to communicate with is also selected by selecting an antenna with a controlled weight from the plurality of antennas and making possible a handover process accompanying the travel of the mobile node.